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(54) Title:	A SERVICE ACCESS METHOD AND INTERFACE		
(57) Abstract	<p>A method of providing access to a service including disclosing a unique access code provided with a product, the access code providing access to the service for a predetermined period of time, entry of a unique access code provided with a product. A process of attaching a unique access code to a product, including deriving the unique access code from a number for the product, and adding the access code to the product, such that the access code can only be obtained on using or purchasing the product, the access code providing access to a service for a predetermined period of time. The product may be a manufactured good, such as a soft drink, or that delivered by a service provider, such as a television program. The service to which access is given may be an Internet video game service.</p>		
	<p>Published <i>With international search report. With amended claims.</i></p>		
	<pre> graph TD 22[ENTER ACCESS CODE] --> 24[DECRYPT CODE TO BATCH No.] 24 --> 26{VALID BATCH No.?} 26 -- N --> 28{NEW USER?} 28 -- Y --> 32[ENTER USERNAME] 28 -- N --> 34[ACCESS AT LEVELS FOR USERNAME FOR TIME t] 32 --> 34 34 --> 36{t=7?} 36 -- N --> 40[SAVE PARAMETERS FOR USERNAME DENY ACCESS CODE] 36 -- Y --> 34 34 --> 40 </pre>		

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A SERVICE ACCESS METHOD AND INTERFACE

The present invention relates to a method of accessing a service, a service access interface and a process of attaching an access code to a product.

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To at least recoup the costs of providing a service to the public requires a service provider to charge a direct fee for the service or obtain some form of subsidisation, either from a government entity or advertisers who see value in displaying advertisements during provision of the service. Whilst most service providers will rely on some form of direct fee 10 payment, this can prove difficult or costly to achieve in situations where there is an extremely large number of clients or a secure monetary transaction cannot be guaranteed. These problems affect most parties who wish to provide services on the Internet, such as gaming services which may involve providing access to a multi-player video game. Various methods have been adopted in an attempt to secure financial transactions over the Internet, such as the 15 establishment of virtual bank accounts and the provision of digital certificates, but no one method has yet met with wide acceptance. The most common form of effecting a transaction for an Internet service involves the use of credit cards, either off-line, using SSL technology, or by a direct hyper-terminal link to the service provider. A simple method of extracting some form of payment, benefit, or commitment from consumers prior to accessing a service is 20 desired.

Manufacturers of goods, on the other hand, are continually dealing with another problem which is securing brand loyalty for their goods. One technique of trying to engender some form of brand loyalty from consumers, which is primarily used by cereal and snack 25 food manufacturers, involves packaging the goods with additional gifts, which a purchaser can avail themselves of after purchasing a product. The gift may be a toy or a token which forms part of a set to be collected. Inclusion of the gifts with the goods involves considerable additional expense to the manufacturers which ultimately is passed on to consumers. Accordingly a manufacturing process is desired which alleviates this cost but achieves the 30 same effect.

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Service providers, such as television broadcasters, also wish to attract loyalty for their products, such as television programs.

In accordance with the present invention there is provided a method of providing
5 access to a service including disclosing a unique access code provided with a product, said
access code providing access to said service for a predetermined period of time.

The present invention further provides a service access interface including means for
allowing access to a service for a predetermined period of time on entry of a unique access
10 code provided with a product.

Advantageously products can be provided with unique access codes, respectively,
which can only be obtained after purchase or use of the products. The access codes would
each allow access to the service for the period of time.

15

The present invention further provides a process of attaching a unique access code to
a product, including deriving said unique access code from a number for said product, and
adding said access code to said product such that the access code can only be obtained on
using or purchasing said product, said access code providing access to a service for a
20 predetermined period of time.

A preferred embodiment of the present invention is hereinafter described, by way of
example only, with reference to the accompanying drawings, wherein:

Figure 1 is a schematic diagram of a preferred embodiment of a manufacturing
25 system;

Figure 2 is a flow diagram of a preferred embodiment of a service access interface;
Figure 3 is a block diagram of a preferred embodiment of a computer device; and
Figure 4 is a block diagram of a preferred embodiment of a computer system.

30 A manufacturing system 2, as shown in Figure 1, is used to manufacture goods, for

example bottles of soft drink. The system 2 uses existing computer controlled manufacturing equipment with its software altered to print additional data on the goods. In the case of the soft drink bottles illustrated in Figure 1, the bottles 4 travel down a different path 6 to the caps or tops 8 which are to be placed on the bottles 4 by a capping machine 10. A labelling machine 12 is used to print and place labels on the bottles 4, and each bottle is marked with a serial or batch number on the label. The batch numbers for the bottles are sequential so that the date of manufacture can be identified from the batch numbers. This allows batches to be identified and withdrawn from public consumption, if necessary. In accordance with the preferred embodiment, the labelling machine 12 includes additional encryption software 14 which allows each batch number to be encrypted with a secret key to produce a unique and pseudo-random number from each batch number. The pseudo-random numbers are not sequential and can be used as access codes for a service, as described hereinafter. The encryption algorithm used can be one of a variety of known encryption algorithms, such as RSA and Pretty Good Privacy (PGP), provided a secret key is used for encryption as opposed to a public key. The access code derived from a batch number for a bottle 4 is printed on the inside of the cap 8 for that bottle by the labelling machine 12. Therefore once the cap is placed on the bottle by the capping machine 10, the access code can only be obtained by breaking the seal on the cap and opening the bottle. This should ensure that an access code can only be obtained by a consumer once the soft drink bottle has been purchased by the consumer. The access code provides the purchaser with a single access to a service for a time t, for no extra charge.

The service may be an entertainment service provided using a computer device 50, such as PC, which stores and executes a service access interface 20, as shown in Figures 2 and 3. For a service available via the Internet 52, such as a multi-player video game service, the service interface 20 may be stored on a server 54 of the Internet and components of the interface 20, such as HTML pages and Java™ scripts and code, downloaded to a purchaser's or user's computer 56, as shown in Figure 4. The interface 20 initially presents a screen which requires a user, at step 22, to enter the unique access code provided with the purchased good. The access code is then decrypted, at step 24, using the same encryption algorithm as

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the software 14 used in the manufacturing system 2, to obtain the corresponding batch number. The batch number is then compared with ranges of valid batch numbers stored on the server or computer storing the interface 20, at step 26. The batch number derived from the access code must fall within a valid batch number range to obtain access to the service, 5 otherwise operation of the interface 20 returns back to step 22. Relating the access codes to the batch numbers has the significant advantage that valid accesses can be determined by comparison with sequential batch number ranges rather than attempting to make a comparison with an extremely large number of pseudo-random access codes for each and every good sold. Also once a batch is removed from the retail or wholesale market prior to sale, the access 10 codes associated with the goods for these batches can be simply disabled by removing the batch number ranges for the batches from the computer or server storing the access interface 20.

Once the access code is validated as corresponding to a valid batch number at step 26, 15 access will be allowed to the service and the interface proceeds to step 28 where the user is asked to identify himself/herself. If the user is a new user, a unique username is assigned or established at step 30, otherwise the user simply enters his/her username at step 32. Once the username is entered, the interface provides the username to the software of the service so as to allow any stored parameters or data for the user to be retrieved. This may include for a 20 video game, game play levels previously achieved or last known status in a game for the user. Access is only allowed for a set time t , and therefore the interface 20 continually determines at step 38 whether the time t has expired and if not decrements that time accordingly at step 36 as it elapses.

25 When the time t has expired, the interface 20, at step 40, instructs the service software to save any updated parameters or data against the username for the user's recent access to the service. The interface 20 instructs access to the service to cease and removes the batch number for the unique access code from the set of valid batch numbers stored on the server or computer. The ensures that an access code cannot be used again to exceed the time t and 30 requires the user to make a further purchase of the good to obtain another access code for a

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The time t can be varied as desired and the interface 20 may include the facility to allow users to log off a service when the time t has not been fully utilised and then reuse an access code to gain access to the service again until the time t has expired.

5 The service access method and interface described above is particularly advantageous as users can gain access to a service simply by purchasing or availing themselves of a particular good, and no other financial transaction, off-line or otherwise, needs to occur. The manufacturing process for goods is also considerably simplified as only an access code needs to be derived and printed in an effort to engender brand loyalty from consumers. Consumers
10 who wish to access the service for more than the allocated time t will wish to continue to buy brands or watch programs which provide access codes.

Many modifications will be apparent to those skilled in the art without departing from the scope of the present invention as herein described.

CLAIMS:

1. A method of providing access to a service including disclosing a unique access code provided with a product, said access code providing access to said service for a predetermined period of time.
2. A method according to claim 1, wherein said access code is disclosed only after purchase or use of said product.
- 10 3. A method according to claim 2, including identifying a user of the service by a username for subsequent accesses of the service using different unique access codes.
4. A method according to claim 3, including accessing stored information relating to the user for said subsequent accesses.
- 15 5. A method according to claim 4, including registering the user and establishing said username on accessing said service for a first predetermined period of time.
6. A method according to claim 1, including deriving said unique access code from a respective product number for said product.
- 20 7. A method according to claim 6, including storing valid product numbers, deriving a product number from said access code, and providing said access to said service when the derived product number is one of said valid product numbers.
- 25 8. A method according to claim 7, wherein said access code is derived from said product number by encrypting said product number.
9. A method according to claim 7, wherein the product number derived from said access code is obtained by decrypting said unique access code.

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10. A method according to claim 1, wherein said service is provided on a computer system.

11. A method according to claim 10, wherein said system includes at least one Internet 5 server.

12. A method according to claim 10, wherein said service is an entertainment service.

13. A method according to any one of the preceding claims, wherein said product is a 10 purchased good.

14. A method according to claim 13, when dependent on claim 7, wherein said valid product numbers identify a batch of said good.

15. A service access interface including means for allowing access to a service for a predetermined period of time on entry of a unique access code provided with a product.

16. A service access interface according to claim 15, wherein said access code is disclosed only after purchase or use of said product.

20

17. A service access interface according to claim 16, including means for identifying a user of the service by a username for subsequent accesses of the service using different unique access codes.

25 18. A service access interface according to claim 17, including means for accessing stored information relating to the user for said subsequent accesses.

19. A service access interface according to claim 18, including means for registering the user and establishing said username on accessing said service for a first predetermined period 30 of time.

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20. A service access interface according to claim 15, including means for deriving said unique access code from a respective product number for said product.

21. A service access interface according to claim 20, including means for storing valid
5 product numbers, means for deriving a product number from said access code, and means for providing said access to said service when the derived product number is one of said valid product numbers.

22. A service access interface according to claim 21, wherein said access code is derived
10 from said product number by encrypting said product number.

23. A service access interface according to claim 21, wherein said product number is derived from said access code by decrypting said unique access code.

15 24. A service access interface according to claim 15, wherein said interface and said service is provided on a computer system.

25. A service access interface according to claim 24, wherein said system includes at least one Internet server.

20

26. A service access interface according to claim 24, wherein said service is an entertainment service.

27. A service access interface according to any one of claims 15 to 26, wherein said 25 product is a purchased good.

28. A service access interface according to claim 27, when dependent on claim 21, wherein said valid product numbers identify a batch of said good.

30 29. A process of attaching a unique access code to a product, including deriving said

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unique access code from a number for said product, and adding said access code to said product such that the access code can only be obtained on using or purchasing said product, said access code providing access to a service for a predetermined period of time.

5 30. A process according to claim 29, including storing valid product numbers, deriving a product number from said access code, and providing said access to said service when the derived product number is one of said valid product numbers.

31. A process according to claim 30, wherein said access code is derived from said 10 product number by encrypting said product number.

32. A process according to claim 21, wherein said product number is derived from said access code by decrypting said unique access code.

15 33. A process according to claim 29, wherein said service is provided on a computer system.

34. A process according to claim 33, wherein said system includes at least one Internet server.

20 35. A process according to claim 33, wherein said service is an entertainment service.

36. A process according to any one of claims 29 to 35, wherein said product is a purchased good.

25 37. A process according to claim 36, when dependent on claim 30, wherein said valid product numbers identify a batch of said good.

38. A process according to claim 29, wherein said product is a manufactured good and 30 said process is a manufacturing process.

AMENDED CLAIMS

[received by the International Bureau on 28 June 1999 (28.06.99);
original claims 1, 2, 15 and 16 amended; new claims 39 and 40 added (5 pages)]

AMENDED CLAIMS:

1. (Amended) A method of providing access to a service including providing a unique access code with a product without access software and such that said access code is disclosed
5 only after purchase or use of said product, said access code providing access to said service for a predetermined period of time.

2. (Amended) A method according to claim 1, wherein said access code is provided as a reward for said purchase or use of said product.
10
3. A method according to claim 2, including identifying a user of the service by a username for subsequent accesses of the service using different unique access codes.

4. A method according to claim 3, including accessing stored information relating to the
15 user for said subsequent accesses.

5. A method according to claim 4, including registering the user and establishing said username on accessing said service for a first predetermined period of time.

- 20 6. A method according to claim 1, including deriving said unique access code from a respective product number for said product.

7. A method according to claim 6, including storing valid product numbers, deriving a product number from said access code, and providing said access to said service when the
25 derived product number is one of said valid product numbers.

8. A method according to claim 7, wherein said access code is derived from said product number by encrypting said product number.

- 30 9. A method according to claim 7, wherein the product number derived from said access code is obtained by decrypting said unique access code.

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10. A method according to claim 1, wherein said service is provided on a computer system.

11. A method according to claim 10, wherein said system includes at least one Internet 5 server.

12. A method according to claim 10, wherein said service is an entertainment service.

13. A method according to any one of the preceding claims, wherein said product is a 10 purchased good.

14. A method according to claim 13, when dependent on claim 7, wherein said valid product numbers identify a batch of said good.

15 15. (Amended) A service access interface including means for allowing access to a service for a predetermined period of time on entry of a unique access code provided with a product without access software, said access code being disclosed only after purchase or use of said product.

20 16. (Amended) A service access interface according to claim 15, wherein said access code is provided as a reward for said purchase or use of said product.

17. A service access interface according to claim 16, including means for identifying a user of the service by a username for subsequent accesses of the service using different unique 25 access codes.

18. A service access interface according to claim 17, including means for accessing stored information relating to the user for said subsequent accesses.

30 19. A service access interface according to claim 18, including means for registering the user and establishing said username on accessing said service for a first predetermined period

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of time.

20. A service access interface according to claim 15, including means for deriving said unique access code from a respective product number for said product.

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21. A service access interface according to claim 20, including means for storing valid product numbers, means for deriving a product number from said access code, and means for providing said access to said service when the derived product number is one of said valid product numbers.

10

22. A service access interface according to claim 21, wherein said access code is derived from said product number by encrypting said product number.

23. A service access interface according to claim 21, wherein said product number is 15 derived from said access code by decrypting said unique access code.

24. A service access interface according to claim 15, wherein said interface and said service is provided on a computer system.

20 25. A service access interface according to claim 24, wherein said system includes at least one Internet server.

26. A service access interface according to claim 24, wherein said service is an entertainment service.

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27. A service access interface according to any one of claims 15 to 26, wherein said product is a purchased good.

28. A service access interface according to claim 27, when dependent on claim 21, 30 wherein said valid product numbers identify a batch of said good.

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29. A process of attaching a unique access code to a product, including deriving said unique access code from a number for said product, and adding said access code to said product such that the access code can only be obtained on using or purchasing said product, said access code providing access to a service for a predetermined period of time.

5

30. A process according to claim 29, including storing valid product numbers, deriving a product number from said access code, and providing said access to said service when the derived product number is one of said valid product numbers.

10 31. A process according to claim 30, wherein said access code is derived from said product number by encrypting said product number.

32. A process according to claim 21, wherein said product number is derived from said access code by decrypting said unique access code.

15

33. A process according to claim 29, wherein said service is provided on a computer system.

20 34. A process according to claim 33, wherein said system includes at least one Internet server.

35. A process according to claim 33, wherein said service is an entertainment service.

25 36. A process according to any one of claims 29 to 35, wherein said product is a purchased good.

37. A process according to claim 36, when dependent on claim 30, wherein said valid product numbers identify a batch of said good.

30 38. A process according to claim 29, wherein said product is a manufactured good and said process is a manufacturing process.

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39. (New) A method according to claim 2, providing another unique access code as a reward for a further purchase or use of said product, said another unique access code providing access to said service for another said predetermined period of time.

5 40. (New) A service access interface according to claim 16, wherein said allowing means allows access to said service for another said predetermined period of time on entry of another unique access code provided as a reward for a further purchase or use of said product.

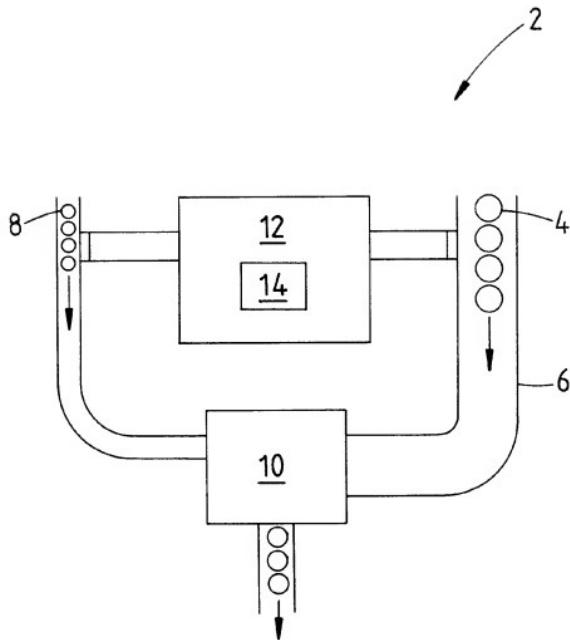
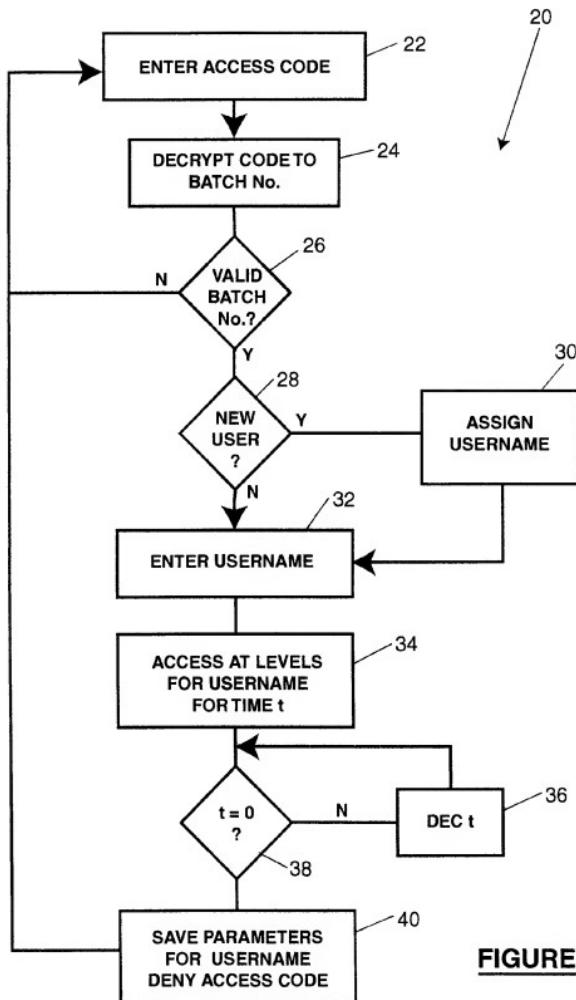


FIGURE 1

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**FIGURE 2**

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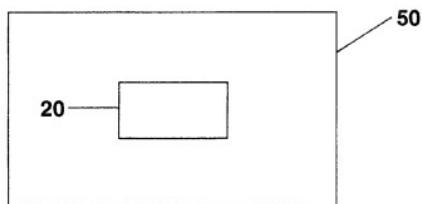


FIGURE 3

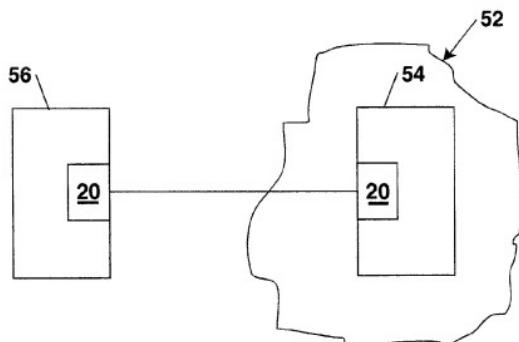


FIGURE 4

INTERNATIONAL SEARCH REPORT

International application No.
PCT/AU 99/00120

A. CLASSIFICATION OF SUBJECT MATTER		
Int Cl ⁶ : G06F 17/60		
According to International Patent Classification (IPC) or to both national classification and IPC		
B. FIELDS SEARCHED		
Minimum documentation searched (classification system followed by classification symbols) IPC : G06F 17/60		
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched		
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) WPAT : "INTERNET" "WWW" "PROMOT;" "ADVERT;" "PRIZE"		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	AU 60292/96 (INTERACTIVE MEDIA WORKS, LLC) 12 December 1996 see whole document and note its search report	1-38
P.X	US 5791991 A (SMALL) 11 August 1998	1-38
<input type="checkbox"/> Further documents are listed in the continuation of Box C		<input checked="" type="checkbox"/> See patent family annex
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Date of the actual completion of the international search 12 March 1999		Date of mailing of the international search report 22 MAR 1999
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INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.
PCT/AU 99/00120

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Patent Document Cited in Search Report				Patent Family Member			
AU	60292/96	WO	96/39668	CA	2223787	US	5749075
		US	5806043	US	5774869		

END OF ANNEX